

## CHAPTER SIX

# Case Studies

The cooperative effort involved in community-based transportation design has inspired innovation and creativity in numerous locales in Washington State. The experience gained and lessons learned in these efforts can serve as examples for other partnership projects around the state. With each partnership project, the processes involved will be adjusted and developed as a toolbox for future partnership efforts.

The following case studies are examples of successful multi-jurisdictional partnership efforts in Washington State. These projects were not developed based on a pre-determined template, but grew from the needs of the partners involved. The case studies are snapshots of community-based design projects at different stages of project development for three types of highway environments:

- ▶ Suburban/Major Arterial
- ▶ Small Town/State Highway
- ▶ Rural Corridor



▲ The City of Covington used colored, textured pavement for crosswalks, pedestrian-scale lighting, and landscaping next to sidewalks.

## Case Study 1: Integrating an Arterial State Highway with the Community Vision—Covington

**The Project:** SR 516, 168th Avenue SE to SE Wax Road

**Location:** Covington

**Type of Project:** Safety & capacity improvement  
Existing Traffic Volume: 29,900 Average Daily Traffic (ADT)

**2020 Projected Traffic Volume:** 32,800 ADT

**Posted Speed:** 35 Miles Per Hour (MPH)

**Adjacent Land Use:** Commercial (office buildings, retail, grocery stores, fast food restaurants, general services)

**Project Development Phase:** Construction completed

### The Players:

Transportation Improvement Board (TIB)  
Puget Sound Regional Council (PSRC)  
Puget Sound Energy  
Local Improvement District  
US Postal Service  
Fred Meyer (grocery store)  
Other Local Developers  
City of Kent  
WSDOT  
City of Covington  
King County

### The Challenges

- Conflicting vehicle turning movements across lanes
- Need to provide sufficient access for businesses to operate
- Need for pedestrian-friendly features to improve non-motorized environment
- Desire for improved through capacity
- Desire to use existing number of lanes to highest efficiency
- Need to maintain adequate emergency vehicle access and throughput

### The Process

This project was originally identified by WSDOT as a safety project in 1997 and scoped to construct a raised curb for access control. Design was scheduled to begin in 1998 with construction anticipated in 1998/99. The City of Covington identified the need for a new traffic signal at 172nd Ave SE in 1998 to improve both access to adjacent undeveloped commercial land to the north and address safety problems as evidenced by the high accident rate at that intersection. The City of Covington and WSDOT merged the two projects together and were able to obtain a Trans-

portation Improvement Board (TIB) grant for the traffic signal and roadway improvements north of Highway 516. They then received a Hazard Elimination Safety (HES) grant to augment the TIB grant and WSDOT funding for the traffic signal and access control work. In addition, the community obtained a Transportation Efficiency Act (TEA)-21 Enhancement/Congestion Mitigation Air Quality (CMAQ) grant for landscaping, decorative crosswalks, and traffic signal inter-connect improvements.

The public involvement process included several open houses hosted by both WSDOT and the City between 1998 and 2001. The City and WSDOT distributed flyers to businesses along the corridor. Covington also published a few special project newsletters and included regular project updates in the City newsletter as well as regularly scheduled open house meetings. The consultant developed a website and updated it regularly with current project status information.



▲ The existing two-way left turn lane was excavated (above) and replaced with a landscaped median (above and right), providing for better traffic flow and improved aesthetics. ►

## The Solutions

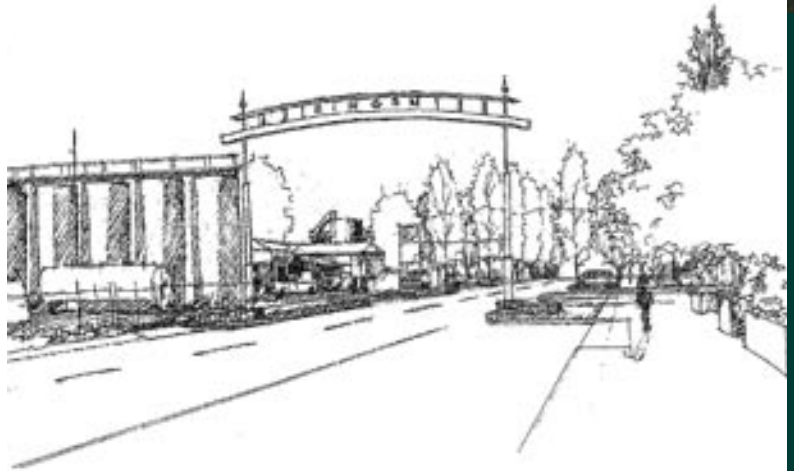
The following design elements were incorporated to help achieve the goals identified for this project:

- Elimination of continuous two-way left turn lanes
- Additional traffic signal and interconnected the traffic signal systems
- U-turn locations
- Landscaped medians
- Access control
- Decorative textured crosswalks
- Pedestrian-scale lighting on side streets
- Eight-foot sidewalks and planting strips on side streets
- Utilities moved underground

## Lessons Learned

It took time to build trust among all stakeholders, but was well worth the effort. There was a lot of interaction with stakeholders individually, but the project team recommends meeting with stakeholders as a group more often.

They also recommend that WSDOT should appoint a single point of contact to shepherd the project through the development process.



▲ The community of Bingen's plans call for notable "gateway" treatments, including arches heralding the entry into town.

## Case Study 2: State Highway Meets Small Town—Bingen

**The Project:** SR 14, from Mile Post (MP) 65.13 to MP 66.76

**Location:** Town of Bingen

**Type of Project:** Rural/Urban Mobility

**Traffic Volume:** 8,000 ADT (existing); 11,900 ADT for 2021 design year

**Posted Speed:** 40 MPH in rural section; 25 MPH in urban section

**Adjacent Land Use:** Agricultural, light industrial, commercial, and residential

**Access Control:** None

**Project Development Phase:** Planning completed

**The Players:**

Town of Bingen  
City of White Salmon  
Klickitat County  
Transportation Improvement Board  
WSDOT

## The Challenges

- Designing the project to help revitalize the downtown
- Two-lane roadway with narrow shoulders
- Diagonal parking on both sides of road in downtown section.

## The Process

This project was originally identified as a pavement preservation project by WSDOT in 1998. In 1999, the Town of Bingen received a grant to revitalize the downtown. Bingen, and WSDOT partnered to include the revitalization elements into WSDOT's paving project.

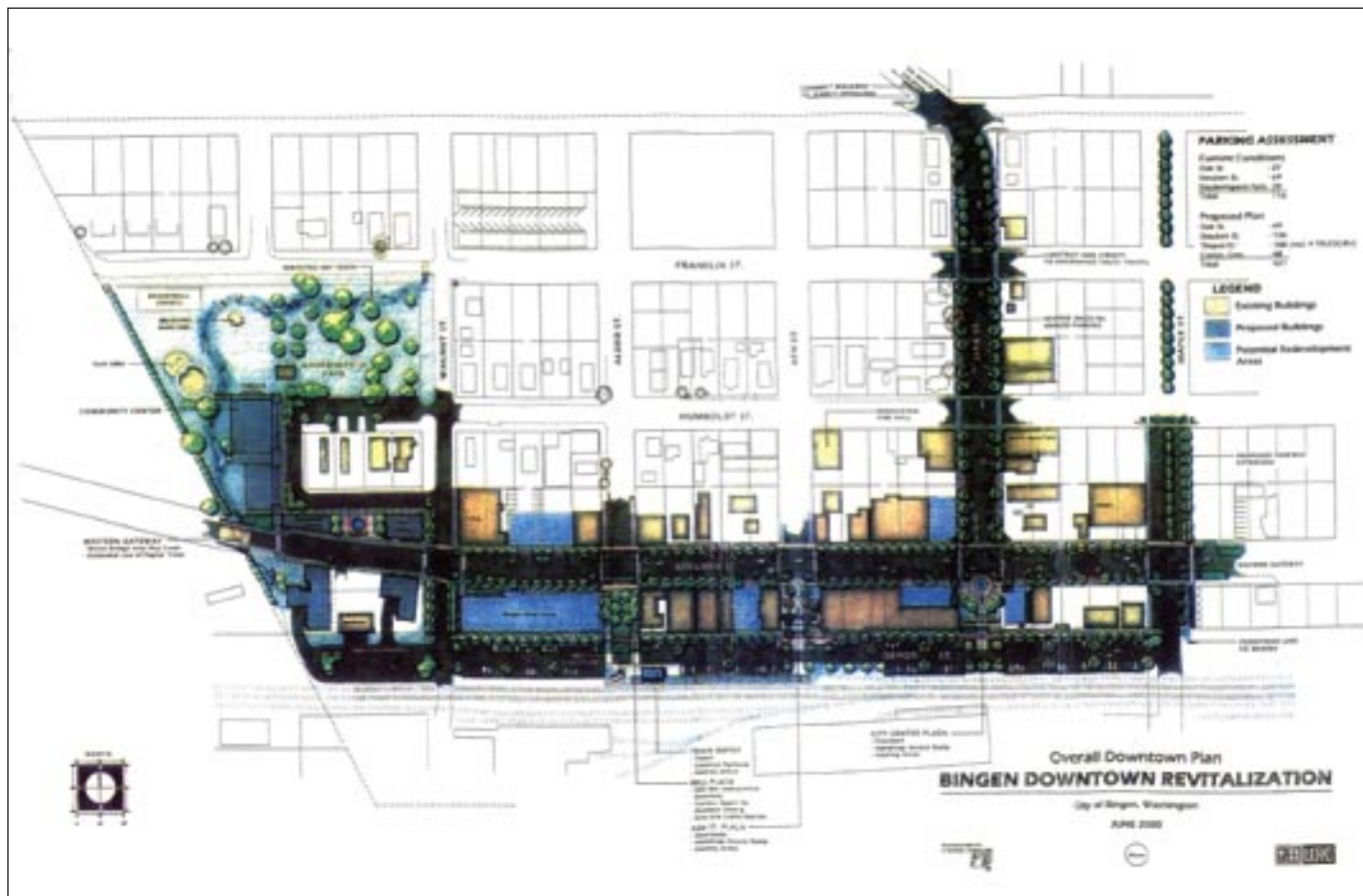
Public involvement was initiated by the community of Bingen and took the form of a downtown revitalization plan. The plan was developed by a consulting firm through the use of design "charettes". See Chapter 2 on charettes. WSDOT continued involving the public by hosting project progress open houses and public meetings to gather input for the staging of the project.

*The Bingen Downtown Revitalization Plan calls for landscaping improvements and public plazas with fountains, outdoor dining, and interpretive exhibits.*

## The Solutions

*The following design elements were developed to help achieve the goals identified for this project:*

- Shoulders widened to 6 feet
- Left-turn lanes and right-turn pockets added to facilitate traffic movement through town
- Street trees and planting strips added in the downtown area
- Pedestrian bulb-outs and wider-than-standard sidewalks installed through the downtown corridor to encourage pedestrian activity
- Utilities placed underground through the town's core area
- Concrete pavers, street furniture, and special light standards added to improve the aesthetic qualities of the downtown corridor



The Bingen Downtown Revitalization Plan calls for landscaping improvements and public plazas with fountains, outdoor dining, and interpretive exhibits.

## Lessons Learned

The project team recommends that WSDOT be more involved in the early community visioning process to minimize outcomes that don't achieve acceptable design standards. They also recommend obtaining early buy-off on design concepts, establishing cut-off dates for design decisions, getting community decision makers involved from the project start, and lots of communication.

### Case Study 3: State Highway within a Scenic Area — The Columbia Gorge

**The Project:** SR 14, from MP 18 to MP 61, Columbia River Gorge National Scenic Area

**Type of Project:** Corridor Management Plan

**Project Development Phase:** Corridor plan completed/some projects constructed

The SR 14 Corridor Management Plan completes a four-year multi-agency effort to define and guide highway improvements projects through the Columbia River Gorge National Scenic Area (CRGNSA). The SR 14 Corridor Management Plan (CMP) consists of three independent reports, plus appendices, all bound in one document. The SR 14 Strategy, the Route Development Plan, and the Design Guidelines.

As projects identified in the Route Development Plan receive funding, they follow an individual project development process. The individual project development process develops and refines design details of projects, as necessary for their completion. There are six key steps in the individual project development process. This process provides all the Memorandum of Understanding (MOU) signatories opportunity for project development and approval.

The case study presented here highlights one of the projects completed from the Corridor Management Plan which used unique signage to establish a consistent feel and sense of place for the corridor.



▲ View of the Columbia Gorge from the south, looking northeast. The Columbia River crosses the Cascade mountain range via the Gorge known for its panoramic vistas and rugged topography.

#### The Players

USDA Forest Service  
Columbia River Gorge Commission  
Klickitat County Transportation Policy Committee  
Skamania County Transportation Policy Committee  
Southwest Washington Regional Transportation Council  
WSDOT

### The Challenges

- Two-Lane Rural Principal Arterial Highway and Bicycle Touring route.
- Traffic Volume: 4047 ADT
- Speed: Varies from 25 MPH to 55 MPH
- Adjacent Land Use: Rural, designated National Scenic Area
- Access Control: Limited Access
- Safety and Socio-Economic Needs: long-term direction needed for corridor safety improvements that also protect the highway's rural character.

### The Process

This project was originally identified within a corridor management plan for the SR 14 Columbia River Gorge corridor. A Memorandum of Understanding to guide the development of the SR 14 Corridor Strategy and Action Plan and the management of the highway was signed by the steering committee. The committee met monthly throughout the development of the corridor management plan.

Public meetings were held on each aspect of the study. As work progressed, the project team

reached out to three key audiences:

- ▶ Steering Committee members
- ▶ Citizens and groups who had expressed an interest in the project
- ▶ General public

### The Solutions

- A unified and coordinated approach to signs was determined to be one of the most important elements in maintaining an identity for SR 14 through the Gorge. Signs are the most visible and frequent man-made structures that drivers see. Recognizing SR 14 through the Gorge as a unique entity, the cooperating managing agencies developed a unified signing system as the standard for all scenic area information signs along public roads in the National Scenic Area.
- Main entry signs and geographic interest signs for Columbia River Gorge National Scenic Area were placed through a grant received by the USDA Forest Service Scenic Area engineer from the Federal Highway Administration. Future signs will be provided by WSDOT. All traffic control signs occurring along the SR 14 mainline are to conform to *Manual of Uniform Traffic Control Devices (MUTCD)* and WSDOT sign standards as well as the design criteria developed in the corridor plan. The sign guidelines in the corridor plan require all new sign backs and metal sign posts to be treated or lightly painted with a dark, natural or earth-tone color to eliminate glare.

### Lessons Learned

The Corridor Management Plan outlines a process on how to proceed with future projects within the Scenic Area. The team recommends that future similar efforts would benefit from implementing a communication strategy to disseminate information about the existence of the plan to all parties who would potentially be working on projects in the corridor.



▲ Unique signage has been developed to establish a consistent feel and sense of place for the SR 14 corridor.